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10/665,156

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William Lin

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EXAMINER

NGUYEN, MAIKHANH

ART UNIT

PAPER NUMBER

2176

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/665,156	<b>Applicant(s)</b> LIN, WILLIAM	
	<b>Examiner</b> Maikhanh Nguyen	<b>Art Unit</b> 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,8,9,11-13,15-19,23,24,26-28,30,33-38,40,41,43 and 44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,8,9,11-13,15-19,23,24,26-28,30,33-38,40,41,43 and 44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to the RCE filed 02/15/2008

Claims 1-4, 8, 9, 11-13, 15-19, 23, 24, 26-28, 30, 33-38, 40, 41, 43, and 44 are currently pending. Claims 6, 7, 10, 14, 21, 22, 25, 29, 31, 32, 39, and 42 have been cancelled. Claims 1-4, 8, 12, 13, 15-19, 23, 27, 28, 30, and 33-36 have been amended. Claims 1, 13, 16, 28, and 33 are independent claims.

### **Request Continuation for Examination**

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed 02/15/2008 has been entered.

### Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 16-19, 23, 24, 26-28, 30, 41, and 43 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Independent claims 16 and 28 are directed to a signal directly or indirectly by claiming *computer program product tangibly embodied in a machine-readable medium* and the Specification (page 11, lines 15-20) recites evidence where *the machine-readable medium* is defined as a “**information carrier / propagated signal**”. In that event, the signal claim is ineligible for patent protection because they do not fall within any of the four statutory classes of § 101.

Dependent claims 17-19, 23, 24, 26, 27, 30, 41, and 43, they are rejected for fully incorporating the deficiencies of their base claims.

### Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

*This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).*

- a Claims 1-4, 8, 9, 11-13, 15-19, 23, 24, 26-28, 30, 33-38, 40, 41, 43, and 44 are rejected under U.S.C. 103(a) as being unpatentable over **Jones et al.** (US 20040006744, filed 06/2002) in view of **Harvey et al.** (US 7054924, filed 09/29/2000).

#### **As to claim 1:**

Jones teaches a computer-implemented method and a computer program for correcting (*e.g.*, *changes*) an XML electronic document (*e.g.*, an XML document) [see the Abstract], comprising:

- identifying a validation error in the XML electronic document [see ¶¶ 0034, 0039 0041 → *identifies the error within XML document 410 with underlining ... displaying the indicators of the error within XML document 410 and parallel tree 420 is described in the discussion of FIG. 8*], the validation error being a structural aspect of the XML electronic document that fails to conform to rules of an XML document type definition or an XML schema [see ¶¶ 0008, 0029, 0034, 0039, and 0040], the rules being associated the XML electronic document [see ¶¶ 0030, 0031, 0036, Fig. 3 and associated text → *word-processor 120 has its own namespace and a schema for use with XML documents associated with word-processor 120. The set of tags and attributes defined by the schema for word-processor 120 may define the format of an XML document to such an extent that it is referred to as its own markup language*], the validation error being of a particular kind [see ¶¶ 0034, 0035, and 0039 → *Error data 235 includes data returned to the word-processor 120 from XML validation engine 225 when an error has occurred with relation to elements validated by XML validation engine 225 ... Designating the error as a certain type of error simplifies the analysis that must be performed to rectify the error*];
- selecting a suggestion from among multiple suggestions according to the particular kind of the validation error, and using the selected suggestion to suggest to a user suggested corrections that are predefined for the

particular kind of validation error, the selected suggested corrections to the document to correct the identified non-conforming structure aspect [see ¶¶ 0039 and 0040 → where icon 442 shows that "zip" node 422 has an associated error ... Error display 430 may also include suggested actions for the user in attempting to rectify the error. The suggested actions may be interactive, allowing a user to pick from a list of possible solutions to the presence of the error ... The suggested actions may be interactive, allowing a user to pick from a list of possible solutions to the presence of the error];

- receiving an input selecting one of the suggested corrections [see ¶ 0040 → display indicators may be used within parallel tree 420 to indicate the presence of an error associated with a node. According to the example shown, right-clicking on the underlined element(s) (e.g., error element 432) within the XML document 410 produces error display 430 (e.g., a right-click menu). Error display 430 lists detailed information regarding the error, such as the error type. Error display 430 may also include suggested actions for the user in attempting to rectify the error. The suggested actions may be interactive, allowing a user to pick from a list of possible solutions to the presence of the error]; and

- using the logic in the selected suggestion to apply the correction selected by input to the XML electronic document [see ¶¶ 0039, 0040, and 0043 - 0045].

Jones does not specifically teach the use of templates.

Harvey teaches the use of templates [see col. 2, lines 51-65; col. 4, lines 3957; col. 6, lines 21-32; col. 20, line 20 –col. 21, line 65 → A template describing a device configuration is retrieved, and the template comprises zero or more parameters that may be resolved into values specific to a particular device. Zero or more values of parameters specific to the device are received. A device-specific instance of the configuration information is created and stored, based on the template and the values of parameters and conforming to an Extensible Markup Language Document Type Definition (XML DTD), comprising one or more XML tags that delimit the configuration information].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jones with Harvey because it would have provided the capability for enabling validation of an extensible markup language document and reporting of schema violations in real time as a user edits the document.

**As to claim 2:**

Jones teaches identifying, among other things, mismatched structural aspect of the XML\_electronic document [see ¶ 0034 → *a missing contents error*].

**As to claim 3:**

Jones teaches the rules include one or more rules stored separately from and referred to in the XML electronic document [see ¶ 0030 → *a schema for use with XML documents associated with word-processor 120 ... define the format of an XML document to such an extent that it is referred to as its own markup language ... adhere to the rules of other markup languages*].

**As to claim 4:**

Jones teaches the rules include one or more rules stored in the XML electronic document [see ¶ 0030 → *a schema for use with XML documents associated with word-processor 120 ... define the format of an XML document to such an extent that it is referred to as its own markup language ... adhere to the rules of other markup languages*].

**As to claim 8:**

Jones teaches the rules include one or more rules defined in an XML DTD [see ¶ 0030 → *a schema for use with XML documents associated with word-processor 120 ... define the format of an XML document to such an extent that it is referred*

*to as its own markup language ... adhere to the rules of other markup languages].*

**As to claim 11:**

Jones teaches requesting information from a user about the identified structural aspect [see ¶ 0030 and Fig. 5 & associated text → *The set of tags and attributes defined by the schema for word-processor 120 may define the format of an XML document to such an extent that it is referred to as its own markup language, a Word-Processor Mark-up Language (native XML). The native XML is supported by word-processor 120 and may adhere to the rules of other markup languages while creating further rules of its own. The native XML provides a markup language that includes rich display information normally associated with word processing, such as textual formatting (e.g., bold, italics, underlining), paragraph formatting (e.g., line spacing, justification, and the like), tabular formatting (e.g., table rows and columns), and the like. The native XML may then be used in conjunction with a user-defined schema that adds more substantive structure to the document]* and based on input received in response to the request, suggesting to the user one or more changes that would correct the identified structural aspect [see ¶¶ 0067- 0069 → *an error display is presented to the user in response to the right-click that gives detail information on the error that occurred and instruction for rectifying the error ...a determination is made whether the user is hovering the mouse pointer over an icon in the parallel tree].*

**As to claim 12:**

Refer to the discussion of claim 1 above for rejection. Additionally, Jones teaches bringing the entire XML electronic document into conformance with the rules [see ¶ 0030 → *The set of tags and attributes defined by the schema for word-processor 120 may define the format of an XML document to such an extent that it is referred to as its own markup language, a Word-Processor Mark-up Language (native XML). The native XML is supported by word-processor 120 and may adhere to the rules of other markup languages while creating further rules of its own. The native XML provides a markup language that includes rich display information normally associated with word processing, such as textual formatting (e.g., bold, italics, underlining), paragraph formatting (e.g., line spacing, justification, and the like), tabular formatting (e.g., table rows and columns), and the like. The native XML may then be used in conjunction with a user-defined schema that adds more substantive structure to the document*].

**As to claim 13:**

The rejection of claim 1 above is incorporated herein in full. Additionally, Jones teaches recursively validating a parent element of the markup language document by: (i) validating attributes of the parent element; (ii) validating a content model of the parent element; and (iii) recursively validating one or more children of the parent element [see ¶¶ 0031-34 and 0044-0052 → *When validated, the non-native XML elements are examined as to whether they*

*conform to non-native XML schema 215... a schema states what tags and attributes are used to describe content in an XML document, where each tag is allowed, what types of contents can appear within elements, and which elements can appear within other elements, ensuring that the documentation is structured the same way ... The XML validation engine 225 is a module that is configured to maintain an element tree and validate the element tree against some schema ... the XML validation engine 225 may be passed an object that defines an element tree, such as one that corresponds to elements within the XML document 210, a pointer to a schema, such as non-native XML schema 215, and possibly the content of one or more elements of the element tree. With this information, the XML validation engine 225 validates the element tree against the schema and reports any violations to the calling process].*

**As to claim 15:**

Jones teaches checking a root element against a DOCTYPE root tag specified in the rules associated with the XML document; and allowing a user to retag the root element using the DOCTYPE root tag [see ¶¶ 0050-0054, 0060-0061].

**As to claims 16-19, 23-24, and 26-27:**

Refer to claims 1-4, 8-9, and 11-12 above. Claims 16-19, 23-24, and 26-27 are the same as claims 1-4, 8-9, 11-12, except claims 16-19, 23-24, and 26-27 are computer program product claims and claims 1-4, 8-9, 11-12 are method claims.

**As to claims 28 and 30:**

Refer to claims 13 and 15 above. Claims 28 and 30 are the same as claims 13 and 15, except claims 28 and 30 are computer program product claims and claims 13 and 15 are method claims.

**As to claims 33-36 and 37:**

Refer to claims 1-4 and 9 above. Claims 33-36 and 37 are the same as claims 1-4 and 9, except claims 33-36 and 37 are system claims and claims 1-4 and 9 are method claims.

**As to claims 38, 40, 41, 43, and 44:**

Harvey teaches the template is implemented as a list of commands [see col. 2, line 51 - col. 3, line 21; col. 4, lines 30-57; col. 6, lines 21-32; col. 8, lines 30-67; col. 9, lines 29-44; and col. 20, line 23- col. 21, line 57].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jones with Harvey because it would have provided the capability for enabling validation of an extensible markup language document and reporting of schema violations in real time as a user edits the document.

- b. Claims 9 and 24 are rejected under U.S.C. 103(a) as being unpatentable over **Jones et al.** in view of **Harvey et al.** as applied to claims 1 and 16 above and further in view of **Kuo et al.** (US 2004/0268304, filed 06/2002).

**As to claims 9 and 24:**

The combination of Jones and Harvey does not specifically teach *“suggesting a plurality of changes to the user in an order determined by preferred user preferences, the predefined user preferences including ranking particular changes higher than other changes.”*

Kuo teaches suggesting a plurality of changes to the user in an order determined by preferred user preferences, the predefined user preferences including ranking particular changes higher than other changes (see ¶¶ 0048-0053, 0098, 0102, and 0106).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kuo with Jones as modified by Bell because it would have provided the validity checking as warning/hints for correcting syntactic violations among other typically inaccurate context-sensitive guidance and hints.

## **Response to Arguments**

5. Applicants' arguments filed 02/15/2008 have been fully considered but they are not persuasive.

Applicant argues in substance that John does not teach a predetermined suggestion template and are associated with specific validation errors [Remarks, page 14].

In response, the discussion above shows how the combination of the newly applied prior art (Harvey) and Jones meet the claimed limitation.

## **Conclusion**

6. The prior art made of record, listed on PTO 892 provided to Applicant is considered to have relevancy to the claimed invention. Applicant should review each identified reference carefully before responding to this office action to properly advance the case in light of the prior art.

### **Contact information**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maikhanh Nguyen whose telephone number is (571) 272-4093. The examiner can normally be reached on Monday - Friday from 9:00am – 5:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached at (571) 272-4137.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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